

CLAIMS

1. A railroad ballast tamping tool comprising:
 - a) a blade having a height, a width and a depth, being substantially rectangular in shape, the blade
5 tapering at a bottom end and having a groove cut into the bottom end of the blade across the width, a front side of the blade having a layer of tiles of a wear-resistant material secured thereto, overlaying substantially the entire front side of the blade;
 - 10 b) a tear-drop shaped tip of a wear-resistant material, with an angular end being secured in the groove along the bottom width of the blade, with a rounded end projecting below the bottom end of the blade;
 - c) at least one pin secured into a hole running
15 through the width of the blade at a top end; and
 - d) a substantially cylindrical shank having an upper end capable of being attached to a tamping machine, and a lower end that tapers, the tapered portion being attached to the top end of the blade on a rear side.
- 20 2. The tamping tool of Claim 1 further comprising tiles of wear-resistant material secured to at least a portion of the rear side of the blade.

3. The tamping tool of Claim 1 further comprising tiles of wear-resistant material secured to the side of the tapered portion of the shank not attached to the rear side of the blade.

5 4. The tamping tool of Claim 1 wherein the shank is welded to the top rear side of the blade.

5. The tamping tool of Claim 1 wherein the shank and the blade are made from a single unit.

6. A railroad ballast tamping tool comprising:

10 a) a blade having a height, a width and a depth, being substantially rectangular in shape, the blade tapering to a bottom end, and having a slight recess on a top end on a front side of the blade, the blade having a layer of tiles of a wear-resistant material secured
15 thereto, overlaying substantially the entire front side of the blade, the layer of tiles at the bottom end of the blade having one rounded end, the tiles at the bottom end of the blade being secured to the blade such that the rounded end projects slightly below the bottom end of the
20 blade; and

b) a substantially cylindrical shank having an upper end capable of being attached to a tamping machine, and a lower end that tapers, the tapered portion being attached to the top end of the blade on a rear side.

7. The tamping tool of Claim 6 further comprising tiles of wear-resistant material secured to at least a portion of the rear side of the blade.

8. The tamping tool of Claim 6 further comprising
5 tiles of wear-resistant material secured to the side of the tapered portion of the shank not attached to the rear side of the blade.

9. The tamping tool of Claim 6 wherein the shank is welded to the top rear side of the blade.

10 10. The tamping tool of Claim 6 wherein the shank and the blade are made from a single unit.

11. A railroad ballast tamping tool comprising:

a) a blade having a height, a width and a depth, being substantially rectangular in shape, the blade
15 tapering at a bottom end and having a groove cut into the bottom end of the blade across the width, a front side and a rear side of the blade having a layer of tiles of a wear-resistant material secured thereto, overlaying substantially the entire front and rear sides of the blade;

20 b) a tip of a wear-resistant material having a "T" shape with a rounded top being secured in the groove along the bottom width of the blade, such that the rounded top projects below the bottom end of the blade; and

c) a substantially cylindrical shank having an upper
25 end capable of being attached to a tamping machine, and a

lower end that tapers, the tapered portion being attached to the top end of the blade.

12. The tamping tool of Claim 11 further comprising tiles of wear-resistant material secured to the tapered
5 portion of the shank.

13. The tamping tool of Claim 1 wherein the shank is welded to the top of the blade.

14. The tamping tool of Claim 1 wherein the shank and the blade are made from a single unit.

10 15. A railroad ballast tamping tool comprising:

a) a blade having a height, a width and a depth, being substantially rectangular in shape, the blade tapering at a bottom end and having a groove cut into the bottom end of the blade across the width, a front side of
15 the blade having a layer of tiles of a wear-resistant material secured thereto, overlaying substantially the entire front side of the blade;

b) a tip of tiles of a wear-resistant material having a "T" shape with a rounded top being secured in the
20 groove along the bottom width of the blade, such that the rounded top projects below the bottom end of the blade; and

c) at least one pin secured into a hole running through the width of the blade at a top end; and

d) a substantially cylindrical shank having an upper
25 end capable of being attached to a tamping machine, and a

lower end that tapers, the tapered portion being attached to the top end of the blade.

16. The tamping tool of Claim 15 further comprising tiles of wear-resistant material secured to at least a
5 portion of the rear side of the blade.

17. The tamping tool of Claim 15 further comprising tiles of wear-resistant material secured to the side of the tapered portion of the shank not attached to the rear side of the blade.

10 18. The tamping tool of Claim 15 wherein the shank is welded to the top rear side of the blade.

19. The tamping tool of Claim 15 wherein the shank and the blade are made from a single unit.

20. The tamping tool of Claim 15 wherein the bottom
15 end of the blade and the tip of tiles form a V-shape with the point in the center of the bottom end of the blade.

21. The tamping tool of Claim 1 wherein the tiles are secured to the tool by means of gluing, soldering, brazing, or welding.

20 22. The tamping tool of Claim 6 wherein the tiles are secured to the tool by means of gluing, soldering, brazing, or welding.

23. The tamping tool of Claim 11 wherein the tiles are secured to the tool by means of gluing, soldering, brazing, or welding.

24. The tamping tool of Claim 15 wherein the tiles
5 are secured to the tool by means of gluing, soldering, brazing, or welding.